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(71) Applicant: **Nobel Biocare Services AG
8058 Zürich-Flughafen (CH)**

(72) Inventor: **Canter, Stanton R.
Tarzana
CA 91356 (US)**

(74) Representative: **Byström, Kurt Linus
Nobel Biocare AB
Box 5190
402 26 Göteborg (SE)**

(54) **Anchoring element for use in bone**

(57) An anchoring element for use in bone has a proximal end and a distal end. The distal end may be embedded in bone with the proximal end exposed. An abutment surface is disposed toward the proximal end. The anchoring element includes four surfaces that define the distal end. A generally cylindrical first surface defines an exterior of the anchoring element and includes a first external thread having a pitch. An annular second surface is disposed toward the distal end and joined to the first surface along an outer circumference of the second surface. A third surface concentric with the first surface is joined to the second surface along an inner circumference of the second surface. A fourth surface disposed between the distal end and the proximal end of the first surface is joined to the third surface along an outer circumference of the fourth surface.

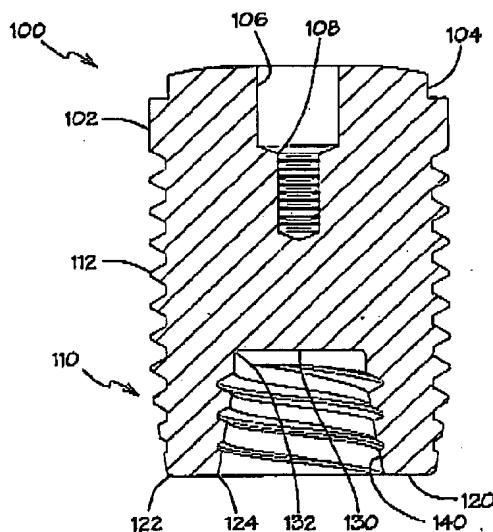


FIG. 3



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US 5 762 500 A (LAZAROF SARGON [US]) 9 June 1998 (1998-06-09) * figures 2,3,5 * * the whole document *	1-3,6-8, 11-14 15	INV. A61C8/00
Y	----- FR 2 737 847 A (PELTIER GUY [FR]) 21 February 1997 (1997-02-21) * figure 1 * * the whole document *	1-3,11, 12,14	
X	----- WO 01/26579 A (SCHROERING ROBERT L [US]) 19 April 2001 (2001-04-19) * figures 2,4 * * the whole document *	1-3, 12-14 15	
Y	----- US 4 960 381 A (NIZNICK GERALD A [US]) 2 October 1990 (1990-10-02) * figures 1,2 * * the whole document *	1,2,11, 12,14	
X	----- US 4 790 753 A (FRADERA ALEJANDRO P [ES]) 13 December 1988 (1988-12-13) * figures 1,3,4 * * the whole document *	1,2, 11-14 15	TECHNICAL FIELDS SEARCHED (IPC)
Y	-----		A61C
The present search report has been drawn up for all claims			
4	Place of search Munich	Date of completion of the search 13 August 2008	Examiner Salvatore, Claudio
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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13-08-2008

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 5762500	A	09-06-1998	AT	241325 T		15-06-2003
			AU	701809 B2		04-02-1999
			AU	1078397 A		01-08-1997
			BR	9612428 A		07-12-1999
			CA	2241926 A1		17-07-1997
			CN	1410032 A		16-04-2003
			CN	1207028 A		03-02-1999
			DE	69628461 D1		03-07-2003
			DE	69628461 T2		01-04-2004
			EP	0877578 A2		18-11-1998
			ES	2200082 T3		01-03-2004
			HK	1017600 A1		31-10-2003
			JP	11501856 T		16-02-1999
			JP	3268781 B2		25-03-2002
			NO	983047 A		03-09-1998
			PL	327734 A1		21-12-1998
			WO	9724996 A2		17-07-1997
			US	5681167 A		28-10-1997
FR 2737847	A	21-02-1997		NONE		
WO 0126579	A	19-04-2001	AU	8017300 A		23-04-2001
			CA	2386809 A1		19-04-2001
			EP	1223886 A1		24-07-2002
			JP	2003511149 T		25-03-2003
US 4960381	A	02-10-1990	DE	3735378 A1		21-07-1988
			GB	2199626 A		13-07-1988
			JP	1964681 C		25-08-1995
			JP	6073529 B		21-09-1994
			JP	63174648 A		19-07-1988
US 4790753	A	13-12-1988	DE	3803495 A1		25-08-1988
			ES	2004221 A6		16-12-1988
			FR	2610820 A1		19-08-1988